

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

HEADWATER RESEARCH LLC,

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD. and  
SAMSUNG ELECTRONICS AMERICA, INC.,

Defendants.

Case No. 2:24-cv-00228-JRG-RSP

JURY TRIAL DEMANDED

**PLAINTIFF HEADWATER RESEARCH LLC'S  
OPENING CLAIM CONSTRUCTION BRIEF**

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**TABLE OF EXHIBITS  
& ABBREVIATIONS**

Ex.	Description	Abbreviation
1	U.S. Patent No. 9,609,510	'510 patent
2	U.S. Patent No. 11,096,055	'055 patent
3	U.S. Patent No. 11,405,429	'429 patent
4	Joint Claim Construction and Prehearing Statement, Dkt. 62 (E.D. Tex. May 17, 2025)	JCCS
5	Ex. A to Joint Claim Construction and Prehearing Statement, Dkt. 62-1 (E.D. Tex. May 17, 2025)	JCCS Ex. A
6	Samsung's Petition for <i>Inter Partes</i> Review of '510 Patent, Paper 2, IPR2025-00483 (PTAB Feb. 10, 2025)	'510 IPR Pet. 1
7	Samsung's Petition for <i>Inter Partes</i> Review of '510 Patent, Paper 2, IPR2025-00484 (PTAB Feb. 10, 2025)	'510 IPR Pet. 2
8	Samsung's Petition for <i>Inter Partes</i> Review of '055 Patent, Paper 2, IPR2025-00481 (PTAB Feb. 26, 2025)	'055 IPR Pet.
9	Samsung's Petition for <i>Inter Partes</i> Review of '429 Patent, Paper 2, IPR2025-00482 (PTAB Jan. 28, 2025)	'429 IPR Pet.
	Plaintiff Headwater Research LLC	Headwater
	Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc.	Samsung
	<i>Inter Partes</i> Review	IPR
	Person of Ordinary Skill in the Art	POSITA

## **I. INTRODUCTION**

Headwater submits this opening claim construction brief to address four disputed terms in three patents. Samsung does not propose any constructions and asserts that all four terms are indefinite. But it falls far short of proving indefiniteness by clear and convincing evidence. In the meet and confers leading to claim construction, Samsung failed to identify, for any term, two or more alternative meanings that render the term ambiguous. Its only argument was that the terms were inadequately described in the specification. This fails. Samsung raises (unfounded) written description arguments that are not a proper basis for indefiniteness.

Otherwise, Samsung's indefiniteness assertions fail for three overarching reasons. *First*, the claim language and the specification are clear. The claims use ordinary English words or known technical terms that would be readily understood to a POSITA. *Second*, Samsung offers insufficient evidence to show indefiniteness. It didn't submit an expert declaration and fails to identify sufficient intrinsic or extrinsic evidence in the JCCS. Headwater expects Samsung to raise unsupported attorney argument. To the extent Samsung clarifies its indefiniteness assertions, Headwater will respond, including based on the evidence listed in the JCCS. *Third*, Samsung's own IPRs on each of the asserted patents undermines indefiniteness. In those IPRs, Samsung had no problem understanding the disputed terms and allegedly mapping them to the prior art.

## **II. BACKGROUND**

### **A. Asserted Patents**

The asserted patents in this case are U.S. Patent Nos. 9,609,510 ("510 patent"); 11,096,055 ("055 patent"); and 11,405,429 ("429 patent"). On June 2, 2025, pursuant to the DCO, Headwater elected the following asserted claims:

- '510 patent — claims 1, 6, 14, 31, 36-38, 40, 43, 48

- '055 patent — claims 1-3, 6-12
- '429 patent — claims 1-4, 6, 8-12

As set forth in the JCCS, the parties dispute four terms for the asserted patents. Samsung contends that each term is indefinite, whereas Headwater contends that each term is not indefinite.

## B. Overview of '510 Patent

The '510 patent is entitled “Automated credential porting for mobile devices.” '510 patent at (54). It claims priority to a provisional application No. 61/785,988 filed on March 14, 2013. *Id.* at (60). At a high level, the '510 patent describes (*id.* at Abstract):

Devices, systems, and non-transitory computer-readable storage media for updating wireless device credentials, the wireless device comprising: a user interface, memory configured to store one or more credentials for enabling the wireless device to obtain one or more services over a wireless access network, and one or more processors configured to execute one or more machine-executable instructions that, when executed by the one or more processors, cause the one or more processors to obtain an indication of a user request to replace a particular credential with a target credential, detect a network-provisioning state change, determine that the particular credential does not match the target credential, initiate a programming session with a network element over a wireless access network, obtain an updated credential from the network element, and assist in storing the updated credential in memory.

Claim 1 of the '510 patent is representative for purposes of claim construction. It recites:

Identifier	'510 Patent, Claim 1
[1.pre]	A wireless device, comprising:
[1.1]	memory configured to store:
[1.2]	one or more credentials associated with the wireless device, the one or more credentials for authorizing the wireless device to use a wireless access network to access one or more services, and
[1.3]	a target credential; and
[1.4]	one or more processors configured to execute one or more machine-executable instructions that, when executed by the one or more processors, cause the one or more processors to:

Identifier	'510 Patent, Claim 1
[1.5]	obtain, through the user interface, an indication of a user request to replace a particular credential of the one or more credentials with the target credential,
[1.6]	detect a network-provisioning state change, and
[1.7]	based on the detected network-provisioning state change, automatically
[1.8]	determine that the particular credential does not match the target credential,
[1.9]	initiate a programming session with a network element communicatively coupled to the wireless device over the wireless access network,
[1.10]	obtain an updated credential from the network element, and
[1.11]	assist in storing, in memory, the updated credential as the particular credential.

### C. Overview of '055 Patent

The '055 patent is entitled “Automated device provisioning and activation.” '055 patent at (54). It claims priority to a series of applications, including provisional application 61/206,354, filed on January 28, 2009. *Id.* at (60). At a high level, the '055 patent describes (*id.* at Abstract):

Various embodiments are disclosed for a services policy communication system and method. In some embodiments, a communications device stores a set of device credentials for activating the communications device for a service on a network; and sends an access request to the network, the access request including the set of device credentials.

Claim 1 of the '055 patent recites:

Identifier	'055 Patent, Claim 1
[1.pre]	A wireless end-user device comprising:
[1.1]	a Wireless Wide-Area Network (WWAN) modem;
[1.2]	a secure memory to store

Identifier	'055 Patent, Claim 1
[1.3]	a target credential; and
[1.4]	a first service profile associated with a first service plan and a first wireless network accessible through the WWAN modem, the first service profile comprising a first set of network service policies, and a second service profile associated with a second service plan and a second wireless network accessible through the WWAN modem, the second service profile comprising a second set of network service policies;
[1.5]	a connection manager to select an access network connection for the WWAN modem, based on a selected one of the first and second service profiles;
[1.6]	at least one adaptive service policy control agent to enforce network service policies associated with the selected one of the first and second service profiles, the enforced network service policies including policies enforced at an application service interface on network data connections for selected applications resident on the device.

#### D. Overview of '429 Patent

The '429 patent is entitled "Security techniques for device assisted services." '429 patent at (54). It claims priority to a series of applications, including provisional application 61/206,354, filed on January 28, 2009. *Id.* at (60). At a high level, the '429 patent describes (*id.* at Abstract):

Security techniques for device assisted services are provided. In some embodiments, secure service measurement and/or control execution partition is provided. In some embodiments, implementing a service profile executed at least in part in a secure execution environment of a processor of a communications device for assisting control of the communications device use of a service on a wireless network, in which the service profile includes a plurality of service policy settings, and wherein the service profile is associated with a service plan that provides for access to the service on the wireless network; monitoring use of the service based on the service profile; and verifying the use of the service based on the monitored use of the service.

Claim 1 of the '429 patent is representative for purposes of claim construction. It recites:

Identifier	'429 Patent, Claim 1
[1.pre]	A method of operating a wireless end-user device, the method comprising:

Identifier	'429 Patent, Claim 1
[1.1]	connecting from a secure modem subsystem to a wireless cellular network;
[1.2]	connecting a first secure control channel from the secure modem subsystem through the wireless cellular network to a network service controller;
[1.3]	connecting a second secure control channel from a secure execution environment, separately secure from the secure modem subsystem, through the secure modem subsystem and the wireless cellular network to the network service controller;
[1.4]	receiving at the secure execution environment, via the second secure control channel, one or more messages from the network service controller, the one or more messages comprising one or more service policy settings;
[1.5]	storing the one or more service policy settings in a secure memory partition accessible only from the secure execution environment; and
[1.6]	enforcing, at least in part from the secure execution environment, a network service profile comprising the one or more service policy settings, to control the wireless end-user device use of a service on the wireless cellular network.

### III. THE DISPUTED TERMS ARE NOT INDEFINITE

#### A. “target credential” ('510 patent, claim 1 and dependents)

Headwater’s Proposed Construction	Samsung’s Proposed Construction
Not indefinite; plain and ordinary meaning	Indefinite

The term “target credential” in claim 1 and dependents of the '510 patent is not indefinite. In the parties’ meet and confer on claim construction. Samsung failed to identify two or more alternative meanings that rendered the term ambiguous. Rather, Samsung’s only argument for indefiniteness was that the '510 specification allegedly fails to describe the term “target credential” with enough detail to inform a POSITA as to its scope. This fails.

The claims and specification describe a wireless device with memory that stores a “target credential” and steps for comparing the device’s credential(s) with the target credential:



Identifier	'510 Patent, Claim 1
[1.pre]	A wireless device, comprising:
[1.1]	memory configured to store: . . .
[1.3]	<i>a target credential</i> ; and . . .
[1.5]	obtain, through the user interface, an indication of a user request to replace a particular credential of the one or more credentials with <i>the target credential</i> , . . .
[1.8]	determine that the particular credential does not match <i>the target credential</i> , . . .

'510 patent claim 1; *see also id.* at Abstract.<sup>1</sup> The '510 patent uses “target credential” consistent with the plain meaning. The target credential is a credential stored in memory that replaces a particular credential of the device upon an indication of a user request. In that sense, the target credential is a “target” or goal of the user request or wireless device.

Further informing the meaning of “target credential” are the '510 patent's disclosures regarding Fig. 3 and a “requested credential.” For example:

- “FIG. 3 is a flowchart showing a procedure to update one or more credentials of a mobile device in accordance with some embodiments. At 1160, the procedure starts. At 1161, the device user requests to have at least some aspect of the one or more device credentials changed via a UI interaction on the device. . . . The UI interaction causes the device to communicate with an application server (e.g., porting server 1154, programming server 1152) to facilitate and complete the credential change request.”
- “At 1162, the device stores (e.g., using one or more device agents) the requested credential information locally on the device.”
- “At 1163, the device detects the network provisioning state change.”
- “At 1164, the device determines whether a current credential matches the requested credential to determine if there is a mismatch between the credential that is currently programmed on the device and the credential that the device is

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<sup>1</sup> All emphasis in quoted material added unless otherwise noted.

expecting to be programmed on the device.”

’510 patent at 10:57-11:37.

In Samsung’s IPRs on the ’510 patent, it adopted a similar understanding “target credential” as “requested credential.” *See* ’510 IPR Pet. 1 at 21, n.1 (Samsung agreeing that “the descriptions of the ‘requested credential’ in the specification generally align with the ‘target credential’ in claim 1.”); ’510 IPR Pet. 2 at 22, n.2 (same). In those IPRs, Samsung had no problem understanding the term “target credential” and allegedly mapping it to the prior art. *See* ’510 IPR Pet. 1 at 21 (arguing that “Salmela’s hash value and/or time stamp for the subscription credentials considered current by the registration service are analogous and substantially similar to examples of the ‘requested credential’ (e.g., target credential) as described in the ’510 Patent specification.”); ’510 IPR Pet. 2 at 22 (same).

Samsung’s arguments in IPRs undermine its current indefiniteness assertion in district court. To the extent Samsung further articulates an indefiniteness theory, Headwater will respond. For example, the ’510 patent uses “target credential” consistent with patents and patent applications cited on the face of the ’510 patent, which repeatedly discuss changing or updating credentials. *See* JCCS Ex. A at 1-2. These patents and applications provide further evidence that “target credential” has a plain meaning and would not be indefinite to a POSITA.

**B. “a user service interface to allow a user to make a user selection between the first and second service profiles, the connection manager to, responsive to the user selection, select an access network connection for the WWAN modem” (’055 patent, claim 6)**

Headwater’s Proposed Construction	Samsung’s Proposed Construction
Not indefinite; plain and ordinary meaning	Indefinite

Dependent claim 6 of the ’055 patent is not indefinite. In the parties’ meet and confer.

Samsung failed to identify two or more alternative meanings that rendered claim 6 ambiguous. Again, Samsung’s only argument is that the ’055 patent specification allegedly fails to describe claim 6 with enough detail to inform a POSITA as to its scope. This fails.

The claim language is clear, and the specification fully supports a user interface that allows a user to select between the first and second service profiles, and a connection manager responsive to the user selection. *See* ’055 patent at cls. 1, 6; *id.* at 96:35-59 (“Various applications and/or a user service interface agent communicate via this communications stack, as shown (illustrating such communications with a reference (A)) . . . . The connection manager agent communicates select and control commands and/or modem and access network information via this communications stack, as shown (illustrating such communications with a reference (C) via the modem selection and control layer).”); *id.* at Figs. 29-36.

To the extent Samsung further articulates an indefiniteness theory, Headwater will respond. In Samsung’s IPR on the ’055 patent, it gave no indication that claim 6 (or any part of it) was indefinite. It had no problem understanding claim 6 and allegedly mapping it to the prior art. *See* ’055 IPR Pet. at 50-53. This further undermines Samsung current indefiniteness assertion.

**C. “wherein the at least one adaptive service policy control agent applies network service policies from a superset profile that provides capabilities from each of the first and second service profiles”  
(’055 patent, claim 8)**

Headwater’s Proposed Construction	Samsung’s Proposed Construction
Not indefinite; plain and ordinary meaning	Indefinite

Dependent claim 8 of the ’055 patent is not indefinite. In the parties’ meet and confer. Samsung failed to identify two or more alternative meanings that rendered claim 8 ambiguous. Again, Samsung’s only argument is that the ’055 patent specification allegedly fails to describe

claim 6 with enough detail to inform a POSITA as to its scope. This fails.

The claim language is clear, and the specification fully supports the claimed “superset profile” that provides capabilities from each of the first and second service profiles. For example, the specification describes an exemplary embodiment:

The new superset service profile is then applied so that the user maintains free access to the ambient services, and the billing partners continue to subsidize those services, the user also gets access to Internet services and may choose the service control profile (e.g., from one of the embodiments disclosed herein). ***The superset profile is the profile that provides the combined capabilities of two or more service profiles when the profiles are applied to the same device 100 service processor.*** In some embodiments, the device 100 (service processor 115) can determine the superset profile rather than the service controller 122 when more than one “stackable” service is selected by the user or otherwise applied to the device. The flexibility of the service processor 115 and service controller 122 embodiments described herein allow for a large variety of service profiles to be defined and applied individually or as a superset to achieve the desired device 100 service features.

’055 patent at 68:66-69:15.

To the extent Samsung further articulates an indefiniteness theory, Headwater will respond. In Samsung’s IPR on the ’055 patent, it gave no indication that claim 8 (or any part of it) was indefinite. It acknowledged the patent’s teaching that a “superset profile” is a “profile that provides capabilities of two or more service profiles.” ’055 IPR Pet. at 78-79 (quoting ’055 patent at 69:4-6). And Samsung had no problem understanding claim 8 and allegedly mapping it to the prior art. *Id.* at 79 (arguing that Bajko’s “common service profile” includes capability information such as services specified by service profiles stored on multiple SIM cards and therefore renders obvious “capabilities from each of the first and second service profiles”). This further undermines Samsung current indefiniteness assertion.

**D. “secure modem subsystem” (’429 patent, claim 1)**

Headwater’s Proposed Construction	Samsung’s Proposed Construction
Not indefinite; plain and ordinary meaning	Indefinite

The term “secure modem subsystem” in claim 1 and dependents of the ’429 patent is not indefinite. In the parties’ meet and confer on claim construction, Samsung failed to identify two or more alternative meanings that rendered the term ambiguous. Its only argument was that it was allegedly unclear what constitutes a modem “subsystem.” This fails.

Claim 1 of the ’429 patent recites and provides context for the claimed modem subsystem:

Identifier	’429 Patent, Claim 1
[1.pre]	A method of operating a wireless end-user device, the method comprising:
[1.1]	connecting from <i>a secure modem subsystem</i> to a wireless cellular network;
[1.2]	connecting a first secure control channel <i>from the secure modem subsystem</i> through the wireless cellular network to a network service controller;
[1.3]	connecting a second secure control channel from a secure execution environment, separately secure from <i>the secure modem subsystem</i> , through the secure modem subsystem and the wireless cellular network to the network service controller;

Claim 1 uses modem “subsystem” in the ordinary sense of a modem system that is part of a larger system. See <https://www.merriam-webster.com/dictionary/subsystem> (*subsystem*: “a system that is part of a larger system”). The same meaning is supported by the dependent claims, which provide additional context. See ’429 patent at cls. 1-7, 10-12.

The specification likewise discusses modem subsystems and would inform a POSITA. See *id.* at 5:14-41 (discussing Fig. 1 as showing a device “that utilizes *the modem subsystems #1 (125) through #N (127)* to connect to one or more of the access networks #1 (136) through #N (138)”),

10:29-31 (“In some embodiments, the modem subsystem also includes DAS elements that strengthen the access control integrity of the DAS system.”). It also supports *secure* modem subsystems. *See id.* at 10:23-29 (“In some embodiments, the protected DAS partition and/or the modem execution partition can be used to securely store some or all of the device credentials that are used for one or more of device group association, activation, authorization to the access network and/or the DAS network, service level, and service usage accounting and/or billing.”).

In Samsung’s IPR on the ’429 patent, it gave no indication that it wouldn’t understand the term “modem subsystem” or that it is definite. It argued that the DM prior art reference “together with the modem’s transceiver circuitry, make up the combination device’s *secure modem subsystem*. ’429 IPR Pet. at 18-19. Samsung further argued that “Implementing the combination’s *secure modem subsystem* would thus have been a conventional and obvious way to implement secure communications using a wireless modem and is nothing more than utilizing familiar, known components . . . to achieve a predictable result of facilitating secure wireless cellular communications from the device.” *Id.* at 9.

Samsung’s arguments in IPRs undermine its current indefiniteness assertion in district court. To the extent Samsung further articulates an indefiniteness theory, Headwater will respond.

#### IV. CONCLUSION

For the foregoing reasons, the Court should find that the disputed terms are not indefinite.

Dated: June 23, 2025

Respectfully submitted,

/s/ Marc Fenster

Marc Fenster (CA SBN 181067)

m Fenster@raklaw.com

Reza Mirzaie (CA SBN 246953)

rmirzaie@raklaw.com

Brian Ledahl (CA SBN 186579)

bledahl@raklaw.com  
Ben Wang (CA SBN 228712)  
bwang@raklaw.com  
Dale Chang (CA SBN 248657)  
dchang@raklaw.com  
Paul Kroeger (CA SBN 229074)  
pkroeger@raklaw.com  
Kristopher Davis (CA SBN 329627)  
kdavis@raklaw.com  
Philip Wang (CA SBN 262239)  
pwang@raklaw.com  
Jason M. Wietholter (CA SBN 337139)  
jwietholter@raklaw.com  
RUSS AUGUST & KABAT  
12424 Wilshire Blvd. 12th Fl.  
Los Angeles, CA 90025  
Telephone: 310-826-7474

Andrea L. Fair  
MILLER FAIR HENRY PLLC  
1507 Bill Owens Parkway  
Longview, Texas 75604  
Telephone: 903-757-6400  
andrea@millerfairhenry.com

*Attorneys for Plaintiff  
Headwater Research LLC*

**CERTIFICATE OF SERVICE**

I certify that on June 23, 2025, all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF System per Local Rule CV-5(a)(3).

/s/ Marc Fenster  
Marc Fenster